

The Weather And Society * Integrated Studies Program



Yesterday, Today, and Tomorrow

Tom Behler, Eve Gruntfest, Julie Demuth, Jeff Lazo, Emily Laidlaw

2nd NOAA Testbed Workshop
May, 2010

Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS came about in response to
a persistent need.

***“I want to do work that integrates
meteorology & societal impacts **BUT...*****

***– I don't know how & - I don't know anyone
else who does this kind of work.”***



Changing from what **WAS** to what **IS** the future of integrated weather studies

What is **WAS*IS**

WAS*IS is a growing grassroots movement to **change the weather enterprise** by comprehensively and sustainably **integrating** social science into meteorological research and practice.



Changing from what **WAS** to what **IS** the future of integrated weather studies

Build an ever growing interdisciplinary community, dedicated to the integration of meteorology and social science.



Capacity building – creating a community for lifelong collaboration & support!

Changing from what **WAS** to what **IS** the future of integrated weather studies

Provide this community with a means to learn about and further examine ideas, methods, and real-life examples related to integrated weather-society work.

- Tools – GIS, surveys, qualitative methods*
- Concepts – problem definition, speaking the same language, a process that involves clear goals*
- Topics – risk perception, vulnerability, resilience, patterns of public response to and interpretations of weather information*



Changing from what **WAS** to what **IS** the future of integrated weather studies

Why **WAS*****IS**



Jacqueline Wharton
<http://www.nbcphiladelphia.com>

12-19-2009 Major east coast blizzard

To understand the true significance of weather and weather-related events we need to look at how these phenomena, and the responses to them, impact people's lives; rather than viewing such occurrences in strictly meteorological terms.



Little Sioux Scout Ranch

<http://images.google.com>



Hurricane Katrina

Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS Background



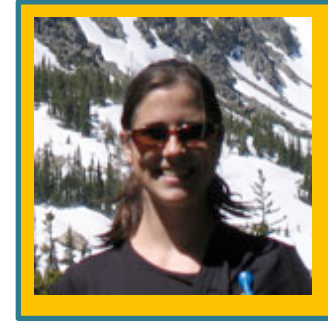
Emily Laidlaw

Associate Scientist
National Center for
Atmospheric Research



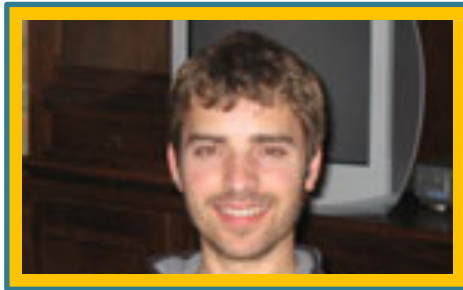
Jeff Lazo, Director

Societal Impacts Program
National Center for
Atmospheric Research



Julie Demuth

Associate Scientist
National Center for
Atmospheric Research



Sheldon Drobot

Program Manager
National Center for
Atmospheric Research



Eve Gruntfest, Director

Social Science Woven Into Meteorology
University of Oklahoma



Tom Behler, Visiting Scientist

National Center for
Atmospheric Research

Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS Summer 2008



WAS*IS Australia 2007



WAS*IS Summer 2006



WAS*IS Today



WAS*IS Summer 2007



WAS*IS Summer 2009

Original **WAS*IS** 2005



Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS WORKSHOPS

- **ORIGINAL** Boulder **WAS*IS**
(Nov 2005 & Mar 2006)
- Norman **WAS*IS** (Apr 2006)
- Australia **WAS*IS** (Jan-Feb 2007)
- Summer **WAS*IS**
(Jul 2006, Jul 2007, Aug 2008, Aug 2009)

In planning ... Caribbean **WAS*IS** (June 2010)
Summer **WAS*IS** (Aug 2010)

Changing from what **WAS** to what **IS** the future of integrated weather studies

Broadening the **WAS*IS** Footprint

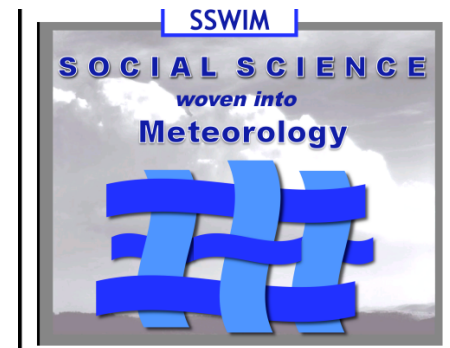
Other related workshops

- NWS Advanced **WAS*IS** (October 2007)
- Advanced **WAS*IS** in conjunction with the NOAA Hazardous Weather Testbed's (HWT) Experimental Warning Program (EWP) (Sept 2008)
- NOAA/NWS Integrated Warning Team (IWT)
Kansas City/Pleasant Hill (January 2009)
Omaha (Sept 2009)
Huntsville (February 2010)

- ❖ **Societal Impacts Meteorologist**
now in the **NWS**
- ❖ **Social Science representation**
in **NWS** Director's Office
- ❖ **New American Meteorological Society Journal**
Weather, Climate & Society

SSWIM

University of Oklahoma
Eve Gruntfest, Director



NWS WFO Elko, Nevada
Pamela Szatanek
WAS*IS Boulder
2005-2006

Working on curriculum to
develop Hazards Literacy
Initiative for their Outreach
and Education Program.

Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS gets *ACADEMIC*

Curricula

Columbia University – Climate and Society Masters Program

Penn State University – Weather Risk Management Concentration

Courses

University of North Carolina, Asheville – Weather and Society

University of Oklahoma – Applied Climatology and Meteorology

Michigan State University – Climate Change and Society

Millersville University – History of Meteorology in the 20th century

Colby College – Weather, Climate and Society

Penn State University – Weather Risk and Financial Markets

Ball State University – Atmospheric Hazards

Mississippi State University – Weather and Society

Northern Illinois University – Natural Hazards and Environmental Risk

– Severe and Hazardous Weather

University of Nebraska, Lincoln – Severe Storms

Lectures

Michigan State University - “El Niño, Ecosystems, and Society in Latin America” and “Hurricanes and Society”

Changing from what **WAS** to what **IS** the future of integrated weather studies



Ways we keep in touch

- SOCIETAL IMPACTS DISCUSSION BOARD

<http://www.rap.ucar.edu/forums/phpBB2/>

- **WAS*IS** EMAIL LIST SERVE

Contact: Tanja.Fransen@noaa.gov

- FACEBOOK

<http://www.facebook.com/group.php?gid=10193441674>

- TWITTER www.twitter.com

Nate Johnson

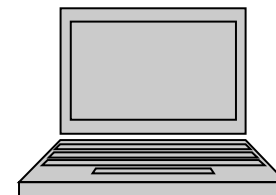
<http://twitter.com/nsj>

Sheldon Drobot

http://twitter.com/sheldon_drobot

Carlie Lawson

<http://twitter.com/naturalhazards>



Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS CHANGES LIVES

Best career-related “training” I have EVER been involved with!!

I’m confident a lot of good collaborations and culture changes will continue to grow out of **WAS*IS**.”

I liked the fact that the learning went both ways (Social Science <-> Meteorology). No one was an expert on it all – and we all had something to share and bring to discussion.

*From the workshop I was able to bring back innovative knowledge, ideas, and, techniques for better integrating weather and societal data into my current research.... **WAS*IS** has become my new reality!*

Changing from what **WAS** to what **IS** the future of integrated weather studies

Rebecca Jennings WAS*IS 2007 FEMA Hazard Mitigation Planner



- Communication undergraduate degree but wanted to be a Meteorologist
- Through persistence, completed MS in atmospheric science.
- First job, after internship, was at The Weather Channel.

*“When we came back from **WAS*IS** our boss said we were totally different – we had a new confidence in our abilities”*

- Developing a cold warning index for livestock
- Collaborating on many projects
- Mentoring new NWS employees



•Attention to weather & vulnerability - building NWS career with focus on impacts & service

Tanja Fransen WAS*IS 2005
Warning Coordination Meteorologist
Glasgow, Montana

*“Since **WAS*IS**, I try to look at everything the NWS does from ... the perspective of people who are impacted by our products, services & efforts.”*

- Redefining job to include social & physical sciences.
- Brings stakeholders to meetings and attends **THEIR** meetings.



•Teaches several classes with weather & society focus; supports societal impacts research.

Dan Nietfeld WAS*IS 2008
Science Operations Officer Omaha, Nebraska

Eric Holthaus WAS*IS 2005
Research Staff Associate, International Research Institute for Climate and Society

- Meteorology undergraduate degree St. Louis University
- Switched to Masters in Climate & Society- Columbia University, NY



•Arranges for small business loans and drought insurance for farmers in Ethiopia

Changing from what **WAS** to what **IS** the future of integrated weather studies

WAS*IS Tomorrow

- WAS*IS Compendium
- Quarterly Webinar Series
- WAS*ISers post work on website
- More regional WAS*IS workshops
- Competitive program for research seed money
- Workshop to introduce meteorology to social scientists
- Further develop university curricula
- Creation of on-line courses
- Specifically focused advanced workshops
- Mentorship of non-WAS*ISers
- Continued presence at AMS and AAG
- Expand into education/outreach; emergency management; special needs populations
- Create one-day AMS short course



There's no stopping us now!!

Changing from what **WAS** to what **IS** the future of integrated weather studies

National Center for Atmospheric
Research (NCAR)

Societal Impacts Program (SIP)

National Weather Service

National Oceanic and
Atmospheric Administration
(NOAA)'s U.S. Weather
Research Program (USWRP)



WAS*IS

The undeniable importance of sustained funding
for the WAS*IS effort

Changing from what **WAS** to what **IS** the future of integrated weather studies

How do I **LEARN MORE** about **WAS*IS**?



Check out the **WAS*IS** website
www.sip.ucar.edu/wasis

Contact:

Dr. Thomas Behler
303-497-8492
behler@ucar.edu

Emily Laidlaw
303-497-2892
laidlaw@ucar.edu

Dr. Jeff Lazo
303-497-2857
lazo@ucar.edu

fax: 303-497-8386



National Center for Atmospheric Research
Research Applications Laboratory / Societal Impacts Program
PO Box 3000 Boulder CO 80307-3000



Changing from what **WAS** to what **IS** the future of integrated weather studies